

Before addressing the prior art rejections, applicant respectfully notes that the PTO has not criticized the form of applicant's claims and has not imposed any rejections under 35 USC 112. Applicant is proceeding in reliance thereof.

Claims 1-4 have been rejected under §102 as anticipated by Kern USP 3,985,066 (Kern). This rejection is respectfully traversed.

Kern discloses basically only what is recited in the preamble of applicant's claim 1. Applicant does not see that Kern discloses any of the features recited in claim 1 following the transitional clause "characterized in that". If the examiner disagrees, applicant would respectfully request the examiner to point out **where** in Kern those features are to be found.

In particular, the third paragraph of claim 1 calls for "the shape and side elevation of side surfaces of the drilling blade being set concave..." and also "so that the circumferential end portions of the blade becomes larger than that of the other portion thereof...." This is certainly a different shape from anything shown by Kern. Thus, the side edge 23 in the embodiments illustrated in the present application define a **concave** curve as can very clearly be seen

in Figs. 1 and 2, and applicant sees nothing remotely similar disclosed in Kern.

Because of the concave curve provided in accordance with the present invention, the penetration hole formed in the sheet metal follows a certain progression as is illustrated in Fig. 4, an entirely different effect than what is produced in Kern. Applicant respectfully requests the examiner to note the sequence which is illustrated in Fig. 4, which is a result of the claimed structure.

To the contrary, the side edge of the Kern blade (e.g. 38, 39) has a line which follows the curvature of the roll itself as clearly illustrated in Fig. 1 of Kern. While it is possible to cut the sheet metal using the Kern apparatus, the same effect as achieved according to the present invention cannot be provided using the Kern construction. Indeed, applicant submits that a **hole** cannot be formed in the sheet metal using the Kern apparatus.

As Kern does not anticipate claim 1, it follows that Kern also does not anticipate dependent claims 2-4 which incorporate the subject matter of claim 1. Applicant respectfully requests withdrawal of the rejection under §102 based on Kern.

Claims 6-12 have been alternatively rejected based on Kern under either §102 (anticipation) or §103

(obviousness). These alternative rejections are respectfully traversed.

First, claim 5 depends from and thus incorporates the subject matter of claim 1, and therefore defines novel subject matter over Kern for the reasons pointed out above with respect to claim 1. In addition, applicant does not see that Kern discloses at least some of the additional features recited in the dependent portion of claim 5. Therefore, claim 5 defines novel subject matter over Kern for these additional reasons.

As each of claims 6-12 depend from and incorporate the subject matter of claim 5 and, ultimately, claim 1, these claims also define novel subject matter over Kern.

Accordingly, Kern does not anticipate any of applicant's claims, and applicant respectfully requests withdrawal of the rejection of claims 6-12 as anticipated under §102 by Kern.

As regards obviousness under §103, applicant again respectfully notes that claim 5 incorporates the subject matter of claim 1. There is nothing in Kern which would have made it obvious to the person of ordinary skill in the art, at the time the present invention was made, to reshape the Kern blade (e.g. 38, 39) to the concave configuration shown in

applicant's figures (and called for in claim 1) so as to achieve the sequence as illustrated in applicant's Fig. 4.

As recited in the last clause of claim 5, the important distinguishing feature of the blade shape recited in claim 1, causes the application of tensile force during the cutting or drilling operation, a result which is not achieved in Kern. This effect is perhaps best explained in applicant's specification starting with the penultimate paragraph at about the middle of page 17 of applicant's specification and extending through at least the first three paragraphs on page 18, but also through the remainder of page 18 and into page 19.

There is nothing in Kern which would have led the person of ordinary skill in the art to make changes in the Kern system so as to provide applicant's system. Therefore, applicant's claims would not have been obvious from Kern. Applicant respectfully requests withdrawal of the rejection based on §103.

The prior art documents of record and not relied upon have been noted, along with the implication that such documents are deemed by the PTO to be insufficiently pertinent to warrant their application against any of applicant's claims.

Appln. No. 10/070,248  
Amd. dated April 28, 2004  
Reply to Office Action of December 29, 2003

Applicant respectfully requests favorable  
reconsideration and allowance.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.  
Attorneys for Applicant(s)

By



Sheridan Neimark  
Registration No. 20,520

SN:jaa  
Telephone No.: (202) 628-5197  
Facsimile No.: (202) 737-3528  
G:\BN\T\TOYO\Shimizul3\Pto\AMD 28Ap04.doc